

What is claimed is:

1. A security system comprising an information management system for managing information and an
5 encryption support system for supporting encryption of information in the information management system,
the encryption support system including
an encryption rule storing portion for storing rule
10 information that indicates an encryption rule of the information for each secret level that is a level of wanting to keep information secret,
an encryption data transmitting portion for
transmitting encryption data that is necessary for
encrypting information in accordance with the rule to the
15 information management system,
a process information receiving portion for
receiving process information that indicates the
encryption process performed by the information management
system from the information management system,
20 a monitoring portion for monitoring whether or not the encryption of information is performed in accordance with the rule by the information management system on the basis of the process information received from the information management system, and
25 a warning portion for warning the information management system that was found to encrypt information not in accordance with the rule by the monitoring portion to do encryption of information in accordance with the rule, and
30 the information management system including

an encryption data receiving portion for receiving the encryption data from the encryption support system,

a classification secret level storing portion for storing classification of information managed by the information management system in connection with the secret level for each of the classification,

an encrypting portion for encrypting information managed by the information management system by using the encryption data of the secret level corresponding to the classification of the information received by the encryption data receiving portion,

an information storing portion for storing the information encrypted by the encrypting portion, and

a process information transmitting portion for transmitting the process information about the encryption performed by the encrypting portion to the encryption support system.

2. The security system according to claim 1, wherein the rule information indicates the rule including an encryption system that is used for encryption and a valid term of an encryption key that is used for the encryption,

if a period since the information management system encrypted information until the present time exceeds the valid term relevant to the rule of the secret level corresponding to the classification of the information,

the warning portion warns the information management system,

if the encryption system that is indicated in the rule information is changed,

the encryption data transmitting portion transmits the encryption data for performing encryption with the changed encryption system to the information management system, and

5 the warning portion warns to perform encryption of information in accordance with the changed encryption system.

3. The security system according to claim 1, wherein the information management system includes

10 a classification secret level transmitting portion for transmitting classification secret level information that indicates classification of information managed by the information management system and the secret level corresponding to the classification to the encryption support system, and

15 the monitoring portion performs the monitoring by comparing the process information received from the information management system with the classification secret level information.

20 4. The security system according to claim 1, further comprising a valid term managing portion for managing a valid term of a certification for affixing an electronic signature to information, wherein

25 the monitoring portion monitors whether or not it is necessary to reaffix the electronic signature to the information in accordance with the valid term of the certification, and

the warning portion warns the information management system for managing the information to reaffix the electronic signature if it is decided that it is necessary

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to reaffix the electronic signature.

5. An information management system for managing information by receiving support for encrypting information, the support being provided by an encryption support system, comprising:

10 a receiving portion for receiving rule information that indicates an encryption rule of information defined for each secret level that is a level of wanting to keep information secret and encryption data that are necessary for encrypting information in accordance with the rule from the encryption support system;

15 a classification secret level storing portion for storing classification of information managed by the information management system for each classification in connection with the secret level;

20 an encrypting portion for encrypting information managed by the information management system by using the encryption data of the secret level corresponding to the classification of the information received by the receiving portion;

an information storing portion for storing the information encrypted by the encrypting portion; and

25 a process information transmitting portion for transmitting process information that indicates the encryption process performed by the encrypting portion to the encryption support system so as to receive a check whether or not the encryption of the information was performed in accordance with the rule.

6. An encryption support system for supporting an information management system for managing information to

encrypt information, the encryption support system comprising:

an encryption rule storing portion for storing rule information that indicates an encryption rule of the
5 information for each secret level that is a level of wanting to keep information secret;

a transmitting portion for transmitting encryption data that is necessary for encrypting information in accordance with the rule to the information management
10 system;

a receiving portion for receiving process information that indicates the encryption process performed by the information management system from the information management system;

15 a monitoring portion for monitoring whether or not the encryption of information is performed in accordance with the rule by the information management system on the basis of the process information received from the information management system; and

20 a warning portion for warning the information management system that was found to encrypt information not in accordance with the rule by the monitoring portion to do encryption of information in accordance with the rule.

25 7. An encryption support system according to claim 6, further comprising a validity monitoring portion for monitoring validity of an encryption rule that is used currently in accordance with vulnerability information about vulnerability of security received from a security
30 information providing portion, wherein

the transmitting portion transmits the encryption data for changing the rule appropriately to the information management system if it is decided that the encryption rule that is used currently has little validity.

5 8. A computer program product for use in a computer supporting encryption of information for an information management system that manages information, the computer program product comprising:

 means for transmitting rule information that
10 indicates an encryption rule of the information for each secret level that is a level of wanting to keep information secret and encryption data that is necessary for encrypting information in accordance with the rule to the information management system;

15 means for receiving process information that indicates the encryption process performed by the information management system from the information management system;

 means for monitoring whether or not the encryption
20 of information is performed in accordance with the rule by the information management system on the basis of the process information received from the information management system; and

 means for warning the information management system
25 that was found to encrypt information not in accordance with the rule by the monitoring means to do encryption of information in accordance with the rule.